

Re: features visible at low magnification are not "clear" at high magnification

## Re: features visible at low magnification are not "clear" at high magnification

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*Source:* <http://sci.tech--archive.net/Archive/sci.techniques.microscopy/2005-12/msg00124.html>

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- *From:* Gary G <[see.signature@bottom](#)>
  - *Date:* Wed, 28 Dec 2005 17:38:04 -0800
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On 18 Dec 2005 17:37:39 -0800, "sanjiv"  
<[shrivastavas@xxxxxxxxxxxxxxxxxxxxxx](#)> wrote:

>Dear microscopist,  
>  
>I think i have a relatively simple problem for the experts in  
>optical microscopy.  
>  
>I'm looking at indentation in hard ceramics [opaque material] using  
>simple optical microscope with x10,x20,x50,x100 using yellow light,  
>observing in reflection mode.  
>  
>The problem I have is at low magnification x10 around the indents a  
>ring like feature is visible, however at high magnification x50 or  
>x100 the features is not visible. The lateral size of the indents  
>ranges from 30um to 200um. measurements by different techniques  
>(AFM) the vertical depth of indents range from 2um – expected 15ums.  
>The ring like features ranges in height from few(10–50) nanometers  
>to about 1ums.  
>  
>  
>I would appreciate comments, literature, references etc. explaining  
>this effect.  
>  
>since, images can not be posted, i would gladly give images for indpeth  
>response.  
>  
>  
>thanking you for the help.  
>  
>Warm regards  
>Sanjiv

If you can tolerate destructive action on your sample, sputter coating  
with 60A Au/Pd will make the specimen look quite different under LM.

Gary Gaugler, Ph.D.  
Microtechnics, Inc.

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- **Follow-Ups:**

- ◆ **Re: features visible at low magnification are not "clear" at high magnification**

- ◇ From: Aaron

- **References:**

- ◆ **features visible at low magnification are not "clear" at high magnification**

- ◇ From: sanjiv

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